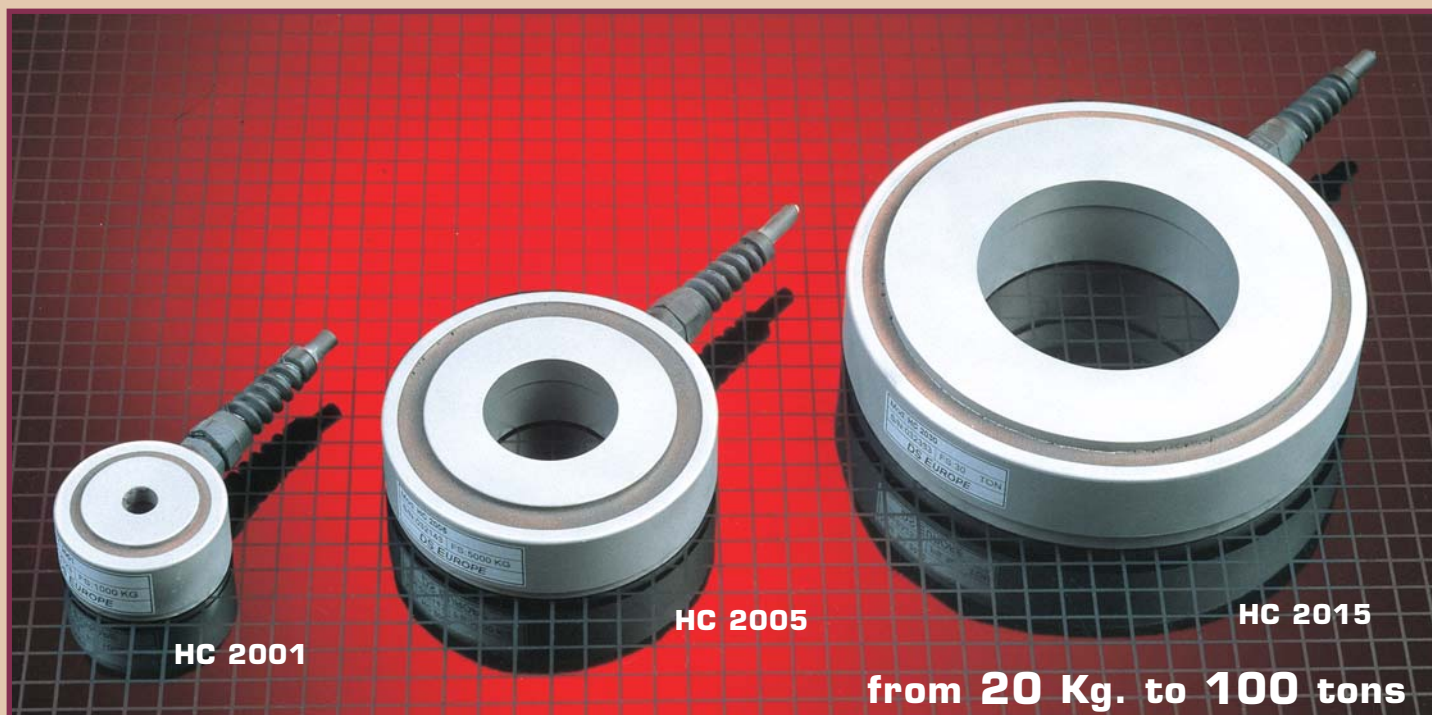


WASHER LOAD CELLS

SERIES HC 2000



APPLICATIONS AND CONSTRUCTIVE FEATURES

HC 2000 Series are washer load cells with a central hole, which supply an electrical signal proportional to the force applied in their axial direction.

These washers find application for the indication and for the automatic control and feedback of axial thrusts static and dynamic on punching machines, on machine tools, on presses, on power hammers installed directly or, better, through a thrust spherical plane bearing.

Main constructive peculiarities:

- Low profile, compactness, high strength, easiness of installation.
- Central hole diameter: large, for standard metric shafts and screws.
- Internal sensors and electrical circuits: entirely stuffed by water-repellent and high insulating silicon filler.
- Internal calibration: to allow a simple calibration of the complete system by the User.

SIGNAL CONDITIONERS AND INDICATORS DS EUROPE

Note: all the underlisted units, connected to the washers HC2000, set up complete measuring systems.

- **Mod. AN401Plus:** Panel meter with microprocessor.
 Display: 5 digits red LEDs display with high brightness.
 High resolution: the input channel has a 24bit max. A/D converter that allows to acquire also small values.
 High sampling rate: from 7,5 up to 3,8KHz allows to acquire fast or slow changing values.
 Digital outputs RS232 or RS485 (DSEnet protocol): allow to digitally retransmit the measured values with DSNet protocol.
 Power supply: 12 or 24Vac/dc to AN401Plus and 5Vdc to load cell.
 Functions: zeroing and positive or negative peak memorization.
 Options: 5V, 10V, 4-20mA analog outputs and alarm levels with relays outputs.
- **Mod. DSLab multichannel data acquisition system:**
 DSLab includes load cells, a mod. SAP digitizing electronics and DSLab data acquisition software (installed on computer): it allows to acquire the load cells analog signals with high resolution and sampling rate, it shows the wave forms on screen, acquired measures can be saved on Hard Disk and also printed.

TECHNICAL SPECIFICATIONS

Measuring ranges: from 20 Kg. to 100 tons (see table below). (FS = Full scale)

Total error: (non-linearity + hysteresis + sensitivity change with temperature): $\leq \pm 0,2\%$ FS.

Sensitivity: 1 mV/V, typical.

Temperature effect on zero: $\leq \pm 0,1\%$ FS, within 5° K. **Creep:** $\leq \pm 0,1\%$ FS, at 4 hours test FS.

Return to zero from FS: $\leq \pm 0,1\%$ FS, after 4 hours FS.

Safe load limit: 50% over FS (see notes). **Ultimate load limit:** 2 times FS (see notes).

Notes: • The load must be applied on the weighing axis, uniformly distributed on the weighing and base surfaces.
Thrust spherical plane bearings are advisable. • For dynamic loads; with shocks and vibrations, difficult to estimate, the max load allowed has to be reduced to avoid yieldings and ruptures.

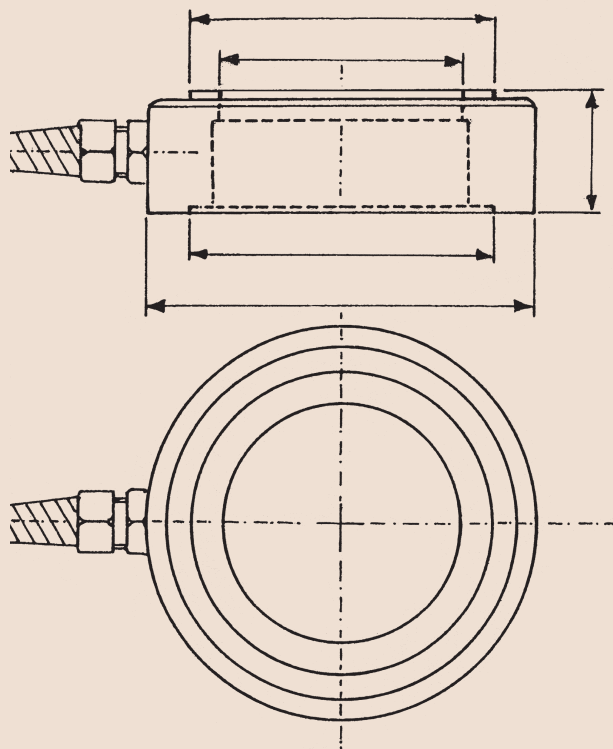
MODEL	MEASURING RANGES	D	A	H	B	C
HC 2001 (Al)	0 to (20)-50-100-200-300 Kg.	50	10,1	26	34	44
HC 2001 (Fe)	0 to 500 - 1000 Kg.	50	10,1	26	34	44
HC 2002 (Fe)	0 to 2 tons	80	30,1	27,5	57	67
HC 2005 (Fe)	0 to 5 tons	100	40,1	29	75	79
HC 2015 (Fe)	0 to 10 - 15 tons	120	50,1	31	93	92
HC 2030 (Fe)	0 to 30 tons	160	80,1	38	137	128
HC 7050 (Fe)	0 to 50 tons	130	101	65	52,2	108
HC 7100 (Fe)	0 to 100 tons	180	132	70	68,5	140

Al=Aluminium
Fe=Steel

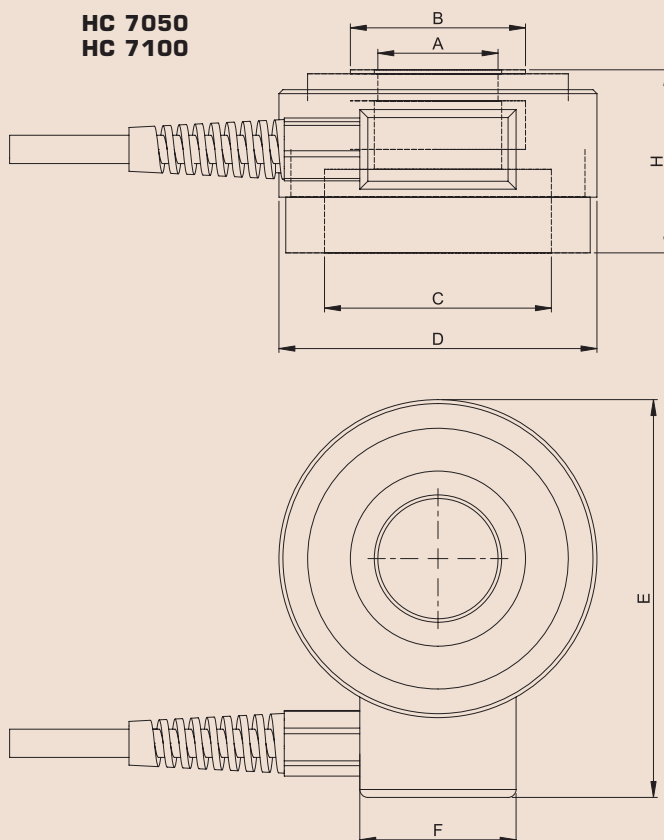
Sizes
mm

Uniform and axial distribution of the load is imperative.
Thrust spherical plain bearing is advisable.

ALL MODEL HC2000



HC 7050 HC 7100



Technical specifications and prices may change without notice.

Bulletin: 220108-UK



DS EUROPE S.R.L.